

# Moving Historical Geodata to the Web

The New York Public Library

Supported by the Alfred P. Sloan Foundation

November 5-7, 2014

## Participants

---

**Aaron Straup Cope** is Canadian by birth, American by descent, North American by experience et Montréalais au fond. He usually just tells people he is from the Internet. Aaron is currently Head of Engineering (Internets and the Computers) at the Cooper Hewitt Smithsonian National Design Museum. Before that, Aaron was Senior Engineer at Flickr focusing on all things geo, machinetag and galleries related between 2004 and 2009. From 2009 to 2011 he was Design Technologist and Director of Inappropriate Project Names at Stamen Design, where he created the prettymaps and map=yes projects.

---

**Abraham Parrish** is Head of the Map Department at Yale University.

---

**Andrew Battista** ~ I am a Librarian for Geospatial Information Systems at New York University, where I facilitate GIS learning and develop geospatial data collections for the NYU community. I earned my Ph.D. in English Literature in 2011, and since then I have taught courses on information literacy, social media, art history, and the politics of information. In addition to geospatial literacy, I am interested in digital humanities, critical library pedagogy, social media, human attention, and games based learning.

---

**Ben Lewis** is system architect and project manager for Harvard WorldMap, an open infrastructure that supports collaborative research centered around geospatial information. Ben also manages Harvard's public instance of the NYPL Warper platform. Before joining Harvard, Ben was a consultant with Advanced Technology Solutions of Pennsylvania. Ben studied Chinese at the University of Wisconsin and has a Masters in Planning from the University of Pennsylvania. After Penn, Ben worked at the U.C Berkeley GIS Lab, started the GIS group for transportation engineering firm McCormick Taylor, and coordinated the Land Acquisition Mapping System for the South Florida Water Management District. Ben is especially interested in technologies that lower barriers to spatial technology access.



ALFRED P. SLOAN  
FOUNDATION



New York  
Public  
Library

# Moving Historical Geodata to the Web

The New York Public Library

Supported by the Alfred P. Sloan Foundation

November 5-7, 2014

***A Training-by-Crowdsourcing Approach for Place Name Extraction from Historical Maps*** ~ This is a proposal we recently developed with Yao-Yi Chiang, a computer scientist at the University of Southern California. We propose to develop a training-by-crowdsourcing approach for automatic extraction of place names in large volumes of georeferenced historical map scans. The proposed solution will provide a map text extraction service and web map client interface that accesses the service. The extraction service will consume raw map images from standard WMSs, and output spatiotemporally labeled place names. The client will allow users to curate (i.e., update, delete, insert, and edit) extraction results and share the results with other users. The user curation process will be recorded and sent to the extraction service to train the underlying map processing algorithms for handling map areas where no user training has been done already (crowdsourced training).

---

**Ben Vershbow** is Director of the [New York Public Library Labs](#), an inter-disciplinary team of librarians, photographers, and technologists working to transform the NYPL's vast collections into first-class citizens of the Internet, and to support emerging forms of research and creativity. Among other initiatives, NYPL Labs works closely with the NYPL Map Division to digitize, geolocate, and data-mine historical atlases through open source tool development and crowdsourcing. Before coming to NYPL, Ben was Editorial Director of the Institute for the Future of the Book, a Brooklyn-based think/do tank investigating new forms of reading, writing, and publishing.

---

**Bill Ferster** ~ I am a research professor at the University of Virginia and director of visualization with the Sciences, Humanities & Arts Technology Initiative (SHANTI) at the College of Arts and Sciences. I teach undergraduate classes that use interactive visualization to explore topics in American history and learning tools design. I am the author of "Interactive Visualization: Insight through Inquiry" (2013, MIT Press), published by MIT, and "Teaching Machines" (2014, Johns Hopkins). At SHANTI I direct the SHIVA ([www.viseyes.org/shiva](http://www.viseyes.org/shiva)), Qmedia ([www.qmediaplayer.com](http://www.qmediaplayer.com)) projects, and with Max Edelson, co-direct the MapScholar project. ([www.viseyes.org/shiva](http://www.viseyes.org/shiva)). In past lives, I founded StageTools, a leading developer of digital motion control tools with its



ALFRED P. SLOAN  
FOUNDATION



New York  
Public  
Library

## Moving Historical Geodata to the Web

The New York Public Library

Supported by the Alfred P. Sloan Foundation

November 5-7, 2014

MovingPicture product; Editing Machines, EMMY award winning developer of the first digital nonlinear editing system; and West End, a pioneer in PC-based animation and presentation graphics tools.

Lightning Talk: **MapScholar** ~ MapScholar is a free, online platform for geospatial visualization. It enables humanities and social science scholars to create digital “atlases” featuring high-resolution images of historic maps. This web application runs in any internet browser and requires no special software (other than a free Google Earth plug-in). MapScholar's user-friendly interface manages geospatial data to make it easy to create and publish simple map collections quickly. MapScholar also supports more sophisticated projects, from data-driven research to the creation of curated exhibitions of cartographic collections. Its suite of tools for image processing, text and graphic annotation, and georeferencing help put maps in context. MapScholar is the place to create and share new visual interpretations of how people have experienced and represented geographic space in world history.

---

**Bonnie Burns** ~ I am the GIS Librarian in the Harvard Map Collection. For the past 15 years I have been working to make our historical collections available for use in a GIS-Friendly way. I came to Harvard from the National Park Service where I used GPS and historic maps to document the battles of the American Civil War.

---

**Chris Filstrup** is currently map librarian. Previously held administrative library positions at Library of Congress, George Washington, North Carolina State and Stony Brook Universities. Have taught special collections courses for LIU/NYU campus.

---

**Chris Fleet** has worked at the National Library of Scotland since 1994, with principal responsibilities for digital mapping and making maps available online at <http://maps.nls.uk>. Promoted wider external use of digital map information through collaborative projects such as AddressingHistory, Visualising Urban Geographies, OpenStreetMap, and the MESH Edinburgh Atlas project. Researched and spoken widely on these subjects and on early maps of Scotland, co-authoring recently-published books 'Scotland: Mapping the Nation' (2011) and 'Edinburgh: Mapping the City' (2014).



ALFRED P. SLOAN  
FOUNDATION



New York  
Public  
Library

## Moving Historical Geodata to the Web

The New York Public Library

Supported by the Alfred P. Sloan Foundation

November 5-7, 2014

Lightning Talk: **NLS digital mapping initiatives** ~ The talk will describe some of the most useful open-source technologies, workflows, applications and code for making maps available online at the National Library of Scotland ( <http://maps.nls.uk> ). This website makes available over 90,000 historical maps, including over 30,000 georeferenced maps, through a number of bespoke viewers, as well as through web-services and an Historical Mapping API ( <http://maps.nls.uk/projects/api/index.html> ). The main web-mapping applications are built upon OpenLayers and GeoServer, with QGIS and MapTiler used internally. It will also mention some recent collaborative projects for vectorising map content and OSM collaboration.

---

**Christopher Thatcher** is a web developer at the Library of Congress and part of a small team working to modernize, unify and enhance the National Library's web presence.

Lightning Talk: **ETL and the Gazetteer at the Library of Congress** ~ Like many large organizations and institutions, the Library of Congress has hundreds of databases, workflows, and legacy systems that continue to operate and grow independently. ETL is the process by which we crawl those systems regularly in order to provide a veneer of uniformity for search and web presentation. During the process, the Library uses the Gazetteer to resolve text based location names into point and polygon coordinates, supplementing the indexed records as we prepare to add more features of geographic discovery and search.

---

**David Riordan** is the Product Manager for NYPL Labs. He loves efforts that turn old maps into usable, linkable data. Also jokes about data.

---

**Eliot Jordan** ~ I am GIS Developer at Princeton University Library. I develop our map search and discovery tools, as well as maintain our geospatial infrastructure.

---



ALFRED P. SLOAN  
FOUNDATION



New York  
Public  
Library

## Moving Historical Geodata to the Web

The New York Public Library

Supported by the Alfred P. Sloan Foundation

November 5-7, 2014

**Eric Glass** is the GIS/Metadata librarian at the Digital Social Sciences Center at the Columbia University Libraries and a Doctoral student in the Geography program in the Earth and Environmental Sciences Department at the CUNY Grad center.

---

**Evan Thornberry** is the Cartographic Reference Librarian for the Norman B. Leventhal Map Center's collection of over 200,000 historical maps and atlases, and takes the lead on all projects involving GIS and geospatial technology. He earned his MLIS from the University of Washington in 2012, and has spent over 6 years working with maps in libraries.

Lightning Talk: ***Digital Stewardship at the Leventhal Map Center*** ~ While the Leventhal Map Center's geospatial projects are in their infancy, their record of digital stewardship is not. Alongside long-running and up-to-date cataloging and digitization processes, new projects to enhance collection access are beginning to move beyond traditional imagery.

---

**Frank Donnelly** is the Geospatial Data Librarian at Baruch College, CUNY, where he works with students and faculty to help them find, process, organize, and interpret place-based information and data. He hosts introductory workshops in GIS and guest lectures in a variety of courses, primarily on using US Census data for research. He has a keen interest in free and open source (FOSS) GIS software; he's developed an introductory GIS workshop and tutorial using QGIS, has created a public SQLite / Spatialite database for studying neighborhood-level data in New York City, and has recently written an article in the Code4Lib Journal on using Python to process government data. He is currently working on a project to establish an Open Geoportal-accessible repository at Baruch, and he supervises a staff of graduate assistants in creating ISO-compliant spatial metadata. Frank holds an MLIS from the University of Washington and an MA in Geography from the University of Toronto.

---

**G. Salim Mohammed** is Stanford University's Digital & Rare Map Librarian since June 2011, curator for the David Rumsey Collection and all other historical cartographic material; involved in Stanford's map scanning operations; slated to run the David Rumsey Map Center to open in 2016; Salim has graduate degrees in Geography (2005) and Library Science (2006) from The



## Moving Historical Geodata to the Web

The New York Public Library

Supported by the Alfred P. Sloan Foundation

November 5-7, 2014

University of Wisconsin-Madison and an MBA (1993) from The University of Maine at Orono. Prior to Stanford, Salim was University of Hawaii at Manoa's first Map and GIS Librarian (2007-2011) where he created Manoa MAGIS (Maps, Aerials and GIS) as a hub for cartographic/GIS data and also managed a GIS lab within the library. Salim also instituted a web-based system to find, retrieve and download aerial photography and maps that were lost after the library flood of 2004.

Lightning Talk: ***Using Spotlight to highlight Map Collections*** ~ Spotlight is a web-based software developed at Stanford University Libraries to showcase or put a "spotlight" on particular collections. It was created so that curators need not design and make "boutique" sites from scratch to highlight a collection. Once a set of maps and metadata are imported into Spotlight, there a number of things one could do--create a curated feature, add carousels, create browse categories, add metadata. Spotlight includes basic features such as creating about pages, resource pages and the like. The beauty of spotlight is that once an instance is created (currently requiring programming) then everything else can be done by a curator with little or no technical expertise.

---

**Him Mistry** ~ I am the GIS lead at NYU. My background entails architecture, urban design & planning and GIS. I worked with NYC Department of City Planning as an urban planner-designer. Currently, my key role is to promote GIS in teaching, learning and scholarship at NYU. (<http://nyu.libguides.com/GIS>)

---

**Holly Orr** has spent the past 20+ years working in geospatial labs and GIS departments on the east and west coasts: UNCC cartography; Thurston County GeoData Center; KCGIS Center (Seattle, WA); NYC Department of City Planning; and NYC DOE Pupil Transportation (School Busing). Her journey has taken her from jobs as an analyst, desktop and web developer, database administrator, data steward, helpdesk, and GIS educator. Currently, she spends her days at NYU Global Technology Services helping faculty incorporate geospatial tools and teaching into their curriculum, and her nights pursuing an MS in Information and Knowledge Strategy at Columbia University. She sits on the Borough of Manhattan Community College GISc Advisory Board. In a



## Moving Historical Geodata to the Web

The New York Public Library

Supported by the Alfred P. Sloan Foundation

November 5-7, 2014

past life (the 90's), Holly toured in a rock band playing lead electric guitar. Today, when she isn't attending her son's break dancing recitals with her wife, she plays for fun in her all-female pop band Bear Trap.

---

**Humphrey Southall** ~ I am Professor of Historical Geography at the University of Portsmouth, Director of the Great Britain Historical GIS Project and creator of the web site A Vision of Britain through Time ([www.VisionOfBritain.org](http://www.VisionOfBritain.org)). I directed the project to create the Old Maps Online site ([www.oldmapsonline.org](http://www.oldmapsonline.org)), working closely with Klokant Technologies GmbH. I am currently leading the development of the PastPlace historical gazetteer in collaboration with the Collaborative for Historical Information and Analysis, led by the University of Pittsburgh, and with the Pelagios project. Much of my work is concerned not with maps but with gazetteers, both building new ones and digitising 19th century ones; but I see the names appearing on old maps as the key source for historical gazetteer construction.

Lightning Talk: ***Digitised old maps are better than paper ones*** ~ The digitization of historical maps has been held back by digital images being seen as mere surrogates, when they are far superior to the paper originals: they are easier to work with, especially on modern touch screen devices; they can be made available to everyone everywhere at minimal cost; provided they are downloadable and under open licenses, they will survive for ever; and they can be cut up, pasted together and scribbled on without causing any real damage. There is consequently a far greater scope for popular engagement, not by the small community of cartographic historians but the far larger communities of local and family historians. Usage data is surprisingly hard to come by, but the limited data we have suggests that online use of digital copies exceeds use of paper originals by an order of magnitude.

---

**Ingrid Burrington** is an artist and researcher working with historical datasets and creating datasets from unconventional resources. Also currently employed by Mapzen, a company working on open source mapping tools and services.

---

**Jack Reed** is a Geospatial Web Engineer at Stanford University. He works on increasing access to geospatial data at Stanford



ALFRED P. SLOAN  
FOUNDATION



New York  
Public  
Library



## Moving Historical Geodata to the Web

The New York Public Library

Supported by the Alfred P. Sloan Foundation

November 5-7, 2014

University Libraries. A contributor to open-source software, Jack is active in the GIS, library, and open-data communities. He also serves on the executive committee of The International Association for Geoscience Diversity.

Lightning Talk: ***GeoBlacklight - Enhancing geodata discoverability*** ~ This talk will briefly introduce the GeoBlacklight project, metadata sharing efforts, and how they can benefit the historical geodata community. GeoBlacklight is a multi-institutional open-source collaboration building a better way to find and share geospatial data. GeoBlacklight adds spatial search and discovery tools to Project Blacklight, a widely used open source discovery interface. Our goal is a full featured discovery solution for geospatial data including historic maps and geodata.

---

**Jan Spitz** has, since 2009, served as the Executive Director of the Norman B. Leventhal Map Center at the Boston Public Library. She oversaw the development and opening in 2011 of a new physical space including an exhibition gallery, learning center and map storage. Under her leadership the LMC has implemented a Strategic Plan that includes developing a central web portal for historic maps and a national program for training teachers to use maps in the classroom to teach all subject areas. She oversees the organization's extensive exhibition, general audience, and K-12 educational programs on site and on the web. For 30 years Jan Spitz has served in leadership positions at educational and cultural institutions in Massachusetts and Ohio. She has led strategic initiatives in audience development at the Worcester Art Museum, an international teacher training program at Perkins School for the Blind, and several fundraising campaigns. She has an advanced degree in Art History.

---

**Jeremiah Trinidad-Christensen** ~ I have worked at Columbia University Libraries for roughly ten years, currently as the Geospatial Services Coordinator providing consultation and outreach services for the University related to GIS. I also teach a GIS course for Pratt Institute School of Information and Library Science (SILS).

---

**Jessie Braden** is the co-founder and Director of Pratt Institute's Spatial Analysis and Visualization Initiative (SAVI). This





## Moving Historical Geodata to the Web

The New York Public Library

Supported by the Alfred P. Sloan Foundation

November 5-7, 2014

GIS-centered multi-disciplinary endeavor focuses on using geospatial analysis and data visualization to understand urban communities. She also developed and coordinates the GIS and Design certificate program at Pratt. Additionally, Jessie is an Adjunct Professor of GIS in Columbia University's Graduate School of Architecture, Planning & Preservation. She is also a Senior Fellow for Planning at Pratt Center for Community Development where she was previously an Environmental Planner/GIS Analyst. Jessie's 15 years of GIS experience include time in the private sector and city government. She was the GIS Manager of the Division of Forestry at the NYC Dept. of Parks & Recreation and began her career at Futurity, Inc., a conservation planning firm. She has Bachelor's and Master's degrees in Geography & Planning from the University of Toledo.

Lightning Talk: ***Geospatial Professionals in Academia: Harnessing the Collective Brain Power*** ~ We are interested in gathering geospatial professionals working around the country in academic institutions. The purpose of the group will be to share information, resources, and ideas on an ongoing basis. Our hope is that it will be easier for all of us to keep up with the rapidly changing tools and data we use for our analyses, data libraries, and services. We aim to create a site/organization that: 1. Will focus on geospatial academic support professionals in the following areas: Instruction/teaching, data & information management, computing infrastructure, research, new tools development; 2. Will not be owned or governed by any one organization or company/ 3. Is inclusive but selective in who can be an editor/contributor. That the content will be open to all, but we will have a core group of content editors/contributors. 4. Starts out light weight and grows organically. Test site: <http://www.hollyorr.com/gpa/>

**Jon Voss** is the Strategic Partnerships Director at Shift, a social enterprise with ten years experience designing consumer products that address social problems by helping people make better choices. He's helping to build an open ecosystem of historical data worldwide through his work with the Historypin team and as the co-founder of the International Linked Open Data in Libraries, Archives & Museum Summit. He leads Shift's US office, with a focus on Historypin, creating innovative ways to help people build community around local history.



ALFRED P. SLOAN  
FOUNDATION



New York  
Public  
Library

## Moving Historical Geodata to the Web

The New York Public Library

Supported by the Alfred P. Sloan Foundation

November 5-7, 2014

Lightning Talk: ***Historical maps, photos, community & mashup culture*** ~ A very quick overview of what's been happening at Historypin, what we're working on now and where we're going. While we're working toward a big sexy web of data, there's lots of politics and technical stuff to work out as well, but we're so much further along now than we were just 3 years ago. Also a plug for the Linked Open Data in Libraries, Archives & Museums Summit in Sydney June 2015, collocated with DH2015.

---

**Julie Sweetkind-Singer** ~ I am the Associate Director of Geospatial, Cartographic and Scientific Data and the Head of the Branner Earth Sciences Library & Map Collections. I am chiefly responsible for determining the library's policies and approaches in a range of areas, including the acquisition, maintenance, preservation, and accessibility of the library's paper, digital collections, and geospatial data. I work in collaboration with David Rumsey and Salim Mohammed on the creation of the David Rumsey Map Center. I am deeply involved with the geospatial team to create more effective preservation and access to our digital holdings via the Stanford Digital Repository, Spotlight, and EarthWorks, our spatial data catalog. From 2004 through 2009, I served as the co-chair for the National Geospatial Digital Archive, part of the Library of Congress's NDIIPP Program. I am currently sit on the National Geospatial Advisory Committee, an advisory body to the Federal Geographic Data Committee.

Lightning Talk: ***Digital Philanthropy: Opening up Hidden Collections*** ~ Stanford Libraries staff have been engaging collectors over the course of the last 5 years in the scanning of their private collections. This university/private donor collaboration has led to a fruitful collaboration allowing for collections that were rarely seen to be made available to the general public. Along the way we have developed models for contracts, procedures for solid stewardship of the collections, and visualization tools to highlight the collections.

---

**Karl Grossner** ~ I am a geographer (Ph.D., University of California, Santa Barbara) currently working as a Digital Humanities Research Developer at Stanford University. In that position I collaborate with humanities faculty in year-long engagements on medium- to large-scale projects conducting research and producing interactive digital publications. Project topics have included



ALFRED P. SLOAN  
FOUNDATION



New York  
Public  
Library

## Moving Historical Geodata to the Web

The New York Public Library

Supported by the Alfred P. Sloan Foundation

November 5-7, 2014

Roman history (ORBIS), the urban experience of parks and open-space (City Nature), British cultural history (Kindred Britain), Neolithic archaeology (Çatalhöyük Living Archive), and literary geography (Authorial London). Apart from my project work, I pursue multiple research threads aimed at extending GIS for the humanities with simple formal modeling patterns. One example is Topotime, a spatial-temporal data model and software for joining complex and fuzzy temporal expressions with spatial extents. Another is generalizing the multi-modal transport model of ORBIS to support a distributed store of global historical network data.

Lightning Talk: ***Focused Themes for Crowd-Sourced Map Digitizing*** ~ An extraordinary effort to enable crowd-sourced digitization of geo-historical information from old maps has begun, instigated in large part by NYPL's Building Inspector. A key element of that success has been its clear goals for developing a particular kind of data supporting certain kinds of historical studies. As the Open Historical Map project gets under way, it will be helpful to develop a handful of themes supported by groups or consortia having specific plans to make use of data the crowd helps to produce. Contributors will know their hard work will be put to immediate use. Themes will tend to focus on certain kinds of maps, having distinctive modeling challenges, and a corresponding set of best practices for digitization. One such theme is development of a global historical transport network-data that can support innumerable studies and applications within many fields. I will present some early work relevant to that theme, and outline a set of issues that have emerged.

---

**Kimberly C. Kowal** is Lead Curator, Digital Mapping, in the Cartographic & Topographic Material section of the British Library. She has held positions in numerous research libraries and map collections in the US and UK, focussing on geospatial data and information technologies, digitisation of historic materials, and cataloguing and metadata capture in libraries. She holds Masters degrees in Geography and Library & Information Science.

Lightning Talk: ***British Library Geo Activity*** ~ This will be a quick overview of some current projects, events and collections at the British Library involving geo technologies, historic mapping in a digital context, and attempts to establish a geospatial content



ALFRED P. SLOAN  
FOUNDATION



New York  
Public  
Library

## Moving Historical Geodata to the Web

The New York Public Library

Supported by the Alfred P. Sloan Foundation

November 5-7, 2014

stream for the UK national repository.

---

**Marc McGee** is Geospatial Metadata Librarian for the Harvard Library and Co-Coordinator of the Open Geoportal Metadata Working Group. Marc specializes in the production of FGDC-compliant metadata for the Harvard Geospatial Library and also has a background in traditional library (MARC) cataloging including geospatial data and historic maps. Marc's professional interests include metadata standards, production tools, and exchange.

Lightning Talk: ***Georeferenced collections of the Harvard Library*** ~ An overview of available historical geodata resources and ongoing cartographic data digitization projects of the Harvard Library.

---

**Matt Knutzen** is the Geospatial Librarian and Curator of the Lionel Pincus and Princess Firyal Map Division and Acting Curator of the Irma and Paul Milstein Division of U.S. History, Local History and Genealogy at the New York Public Library. For thirteen years, he's overseen this collection of around half a million maps and 25,000 books and atlases, both building the collection and ensuring its long-term preservation. He takes every chance he can to show the collection off, providing context and insight to students, donors and scholars alike. Matt has also helped the library establish a new vision for map libraries on the web, through the large scale digitization of historic map collections, the creation of innovative tools for public engagement through those maps and by building from them, with the help of the public, new, queriable, mashable databases. Matt is also a practicing cartographer and a visual artist, publishing and exhibiting his work in New York City and abroad.

---

**Mauricio Giraldo** is a designer/developer in NYPL Labs and the lead on the [Building Inspector](#) and [Map Vectorizer](#) projects. Before coming to the Library, he spent twelve years designing and developing interaction design projects for a wide range of commercial, academic, private and public institutions. Mauricio is an Industrial Designer from Universidad de los Andes in Bogotá, Colombia where he also lectured for six years. He also holds a Master in Human-Computer Interaction from Carnegie Mellon



## Moving Historical Geodata to the Web

The New York Public Library

Supported by the Alfred P. Sloan Foundation

November 5-7, 2014

University and enjoys playing with code, objects and all things interactive.

---

**Merrick Lex Berman** is the Web Services Manager at Harvard's Center for Geographic Analysis. Lex manages Chinese and Japanese geographic information projects such as CHGIS, the Skinner Archive, and JapanMap. Lex is also the editor of the Temporal Gazetteers resources web page ( <http://www.fas.harvard.edu/~chgis/gazetteer/> ), and is the developer of the Temporal Gazetteer Web Service, which provides a faceted search API for historical place names.

Lightning Talk: **Temporal Gazetteer API** ~ The Temporal Gazetteer is a web service for faceted search of historical placename records. <http://chgis.hmdc.harvard.edu/tgaz/api/> By extending the earlier CHGIS XML web service, the new API allows for faceted search combinations of place names, feature types, years of existence, administrative jurisdictions and data sources. Currently the API is available for public use, and additional modules for an editor's interface and an automated ranking system for search results are under development. The system code, including the database definitions and materialized view definitions are available on github.

---

**Michael Sperazza** is a sedimentary geologist in the Department of Geosciences and the Faculty Director for the Coastal Environmental Studies major and minor. Additionally, he is the Director of the Geospatial Center at Stony Brook and the advisor for the students in the Geospatial Science undergraduate minor and Advanced Graduate Certificate. He earned a Ph.D. in Geology and a Master's in Physical Anthropology from the University of Montana.

Lightning Talk: **Mapping Long Island** ~ The Geospatial Center at Stony Brook University is working on a collaborative historical mapping and data collection project for the four counties of Long Island, NY. Starting with SBU departments of History,



ALFRED P. SLOAN  
FOUNDATION



New York  
Public  
Library

## Moving Historical Geodata to the Web

The New York Public Library

Supported by the Alfred P. Sloan Foundation

November 5-7, 2014

Geosciences, Sustainability, Marine Science, Latino Studies, and the Melville Library we seek to expand the collaborations to include many of the local towns and counties. The final product will be an interactive GIS services website that will allow professionals and the general public to view, analyze, and download historical Long Island data.

---

**Michal Migurski** joined Code For America as CTO in 2013. Previous to CfA, Michal spent nine years as a partner and technology director at celebrated San Francisco design studio Stamen where he architected the technical aspects of Stamen's work, moving comfortably from active participation in Stamen's design process, designing database schemas and API's, to creating the dynamic applications that Stamen delivers to clients. At Code For America, he is responsible for engineering standards and technical sustainability. Michal has been building for the web since 1995, specializing in data design and publishing for a diverse range of clients and numerous public, technical research projects and active open source codebases. He's a Polish National and holds a degree in Cognitive Science from UC Berkeley.

---

**Mikel Maron** is a programmer and geographer dedicated to community and humanitarian use of open source and open data. He has organized mapping projects in India, Palestine, Egypt, Swaziland and elsewhere with Ground Truth Initiative, and especially our flagship effort, Map Kibera, the first open source map of the slums of Nairobi. He's a long time contributor to OpenStreetMap; and Founder and Board Member of Humanitarian OpenStreetMap Team, having helped facilitate the OSM response to the 2010 Haiti earthquake. Mikel has served as technical lead for Moabi, a collaborative data project to monitor natural resources in DRC. He co-founded the geoweb company Mapufacture (now part of ESRI), helped build the first wiki at the UN (WaterWiki at the UNDP), and generally worked on collaborative platforms and geoweb standards, with everyone from multinationals to anarchist hacker collectives.

---

**Nicole Coleman** is Research Director for Humanities + Design, a research lab at the Center for Spatial and Textual Analysis (CESTA), Stanford University.



## Moving Historical Geodata to the Web

The New York Public Library

Supported by the Alfred P. Sloan Foundation

November 5-7, 2014

---

**Patrick Florance** is the Manager of Geospatial Technology for Tufts Technology Services (<http://gis.tufts.edu>) and Lecturer at the Fletcher School of Law and Diplomacy at Tufts University. He is also the Director of the Open Geoportal Project (<http://opengeoportal.org>). Formerly Patrick was the Digital Cartographer at Harvard University and has worked in a variety of public, private, and academic environments over the past seventeen years, including New York City Planning.

Lightning Talk: ***The Open Geoportal Cloud Federation*** ~ The Open Geoportal (OGP) is a collaboratively developed, open source, federated web application to rapidly discover, preview, and retrieve, geospatial data and maps from multiple repositories in a variety of formats and web service protocols. The new Open Geoportal 2.0 will be demonstrated as will the new OGP Suite of Federated Services: OGP Community, OGP Harvester, and OGP Metadata Toolkit. Currently there are over 50 organizations and 200 individual partners within the OGP community.

---

**Petr Pridal, Ph.D.** is a consultant, programmer and entrepreneur. As the founder of Klokan Technologies GmbH, he drives his company and a small team of programmers to be the innovative developer of mapping applications empowering people, companies and institutions to search, publish and enjoy the real value of maps they own. Within last years he participated on several international research projects, and developed popular software tool (MapTiler, Georeferencer, OldMapsOnline / MapRank, Gdal2Tiles, BoundingBox, EPSG.io,...)

Lightning Talk: ***Turning scans into map services*** ~ Demonstration of the new features of online services and open-source tools produced by Klokan Technologies GmbH for hosting, collaborative georeferencing and geographical searching in large collections of maps. The new HTML5 technologies such as WebGL are applied in a web browser, to create map overlays and improve user interaction with the maps. It is possible to reuse the maps in GIS tools and Google Maps API or OpenLayers/Leaflet mashups thanks to OGC WMTS standard, annotate the maps and link the related data, and search the maps geographically.



ALFRED P. SLOAN  
FOUNDATION



New York  
Public  
Library



## Moving Historical Geodata to the Web

The New York Public Library

Supported by the Alfred P. Sloan Foundation

November 5-7, 2014

---

**Ronald E. Grim** is Curator of Maps of the Norman B. Leventhal Map Center at the Boston Public Library since January 2005. Previously worked at the Geography and Map Division, Library of Congress and Cartographic Branch of the National Archives. Helped plan and implement the map portion of the Library of Congress American Memory site, and helped plan and develop the Leventhal Map Center digitization program and online collections.

---

**Sajjad Anwar** is a hacktivist and programmer based in Bangalore. He works in the research and design of data infrastructure, analytics and infographics. He hearts maps and often makes one. He is found working with other technologists, social activists and, researchers in education, human rights and policy making. Along with two others, he runs the geohackers.in collective.

---

**Sanjay Bhangar**, web developer, is co-founder of CAMP (<http://studio.camp>), an artist space in Mumbai. He has been part of the pad.ma project since its inception, and recently, has been part of the Topomany, LLC team that built a digital gazetteer for the New York Public Library.

---

**Schuyler Erle** is a partner of Topomancy LLC, where he has helped institutions in the humanities engage with maps and geographic information for over seven years. He has worked in IT for over 15 years, for organizations ranging from Twitter to Yahoo! to UNICEF. Schuyler was a co-author of O'Reilly Media's "Mapping Hacks" and "Google Maps Hacks". He also serves on the Board of Directors of the Humanitarian OpenStreetMap Team, a non-profit dedicated to supporting humanitarian aid and development through open data and software. Schuyler lives in San Francisco.

---

**Shekhar Krishnan** is a historian and anthropologist based in Mumbai, India. Co-director of Topomancy LLC. <http://shekhar.cc>

---

**Stace Maples** ~ I have over 18 years of experience using Geographic Information Systems and geotechnology for research and



## Moving Historical Geodata to the Web

The New York Public Library

Supported by the Alfred P. Sloan Foundation

November 5-7, 2014

teaching, the last 9 spent as Yale University's Geospatial Swiss Army Knife. My professional goals include enabling researchers, scholars and do-gooders to do more meaningful work by helping them investigate, quantify and solve spatial problems with technology, and to be always doing something at least moderately amazing.

Lightning Talk: **Geocoding Photogrammar** ~ Riffing on the roadbumps and dead ends experienced in geocoding 170k images from the FSA/OWI Photography Collection held by the LOC, I lament the lack of robust, comprehensive, FOSS solutions for geocoding contemporary and historical data.

---

**Steven Romalewski** joined the CUNY Graduate Center in 2006 to launch and direct the CUNY Mapping Service. The Mapping Service engages with foundations, public agencies, businesses, nonprofits, & CUNY researchers to use spatial information and analysis to develop & execute applied research projects. Romalewski's team specializes in online applications providing intuitive access to data sets displayed visually through interactive maps & other formats.

Romalewski was awarded a Revson Fellowship at Columbia University in 1995, and received his MS in urban planning from Columbia in 1998. He also teaches graduate-level GIS courses at Pratt Institute's urban planning school. Prior to CUNY, Romalewski co-founded & directed the Community Mapping Assistance Project (CMAP) at NYPIRG. During its 8-year tenure, CMAP enabled dozens of nonprofit, philanthropic, and public service organizations to use computer mapping in their work and take advantage of the growing power of online mapping systems.

---

**Sue Bigelow** is the Digital Conservator at the City of Vancouver Archives, preserving both digital and analogue records in many media. She is also responsible for the Archives' digitization program, which has expanded over the past 17 years to include photographs, textual records, maps and plans, film, video and audio. The Archives is currently working on a project to preserve the, "historical", mostly GIS-related files in the City's Open Data Catalogue. We also plan to preserve VanMap, the City's



ALFRED P. SLOAN  
FOUNDATION



New York  
Public  
Library

## Moving Historical Geodata to the Web

The New York Public Library

Supported by the Alfred P. Sloan Foundation

November 5-7, 2014

integrated GIS; this project was the subject of an InterPARES case study.

Lightning Talk: ***Preservation of Municipal GIS Records*** ~ This is a quick look at the Archives' contributions to and plans to preserve both the City's Open Data Catalogue and the integrated GIS.

---

**Sung-Gheel (Gil) Jang** teaches both fundamental and applied topics in geospatial sciences/geographic information systems (GIS) at Sony Brook University. He received his Ph.D. in Regional Planning from the University of Illinois at Urbana-Champaign, and both an MA in City Planning and a BS in Landscape Architecture from Seoul National University in South Korea. Before joining Stony Brook, he taught at the Cleveland State University and served as program coordinator of a graduate certificate program in urban geographic information systems. His professional experience includes the development of 'ISO 19134:2007 Geographic information - Location Based Services - Multimodal routing and navigation' as a leading contributor. His research interests encompass sharing geospatial information, geospatial data infrastructure, and geospatial and human dimension on sustainable development.

---

**Susanna Änäs** has initiated the Wikimaps project, with a goal of creating a maker space for location-based historical storytelling. She is Project Director in Wikimedia Finland, an aspiring storyteller and an open content advocate. She hopes to be able to grasp this evolution into her dissertation about Digital Documentaries.

Lightning Talk: ***Wikimaps - Creating a maker space for location-based historical storytelling*** ~ The Wikimaps initiative brings together tools for uploading and manipulating old maps in the context of Wikimedia Commons. The tools include batch upload aids for GLAMs for old maps. The NYPL MapWarper has been adjusted to serve Wikimedia Commons. OpenHistoricalMap, the historical map that anyone can edit, has been interwoven with the Warper. Now, we are preparing for a user interface update and developing the maps search. In the future, we look forward to the possibilities of using Wikidata as the key reference repository for



ALFRED P. SLOAN  
FOUNDATION



New York  
Public  
Library

## Moving Historical Geodata to the Web

The New York Public Library

Supported by the Alfred P. Sloan Foundation

November 5-7, 2014

a historical gazetteer. Next, we want to leap ahead and start experimenting with actual location-based stories with the forthcoming Wikimaps Skärgården project.

---

**Tim Waters** is a geospatial developer based in Leeds, UK and one of the directors of Topomancy LLC. Full member of both OpenStreetMap Foundation and Humanitarian OSM Team. Created open source georeferencing software seen on MapWarper.net and the NYPL Map Warper application. Also does OpenHistoricalMap.org and is involved with the Wikimaps Wikimedia Commons project.

Lightning Talk: ***The OpenHistoricalMap Project*** ~ OpenHistoricalMap (OHM) is a project about historical data. It's aim is to make a map of everything that used to exist. The data comes from a variety of sources, contributed by mappers and historians across the world. It utilises and adapts the entire OpenStreetMap software stack enabling many users to contribute mapping information easily. There are some technical challenges, for example in making it easy to create map tiles for any historical time range, but the project adopts the OpenStreetMap adhoc community mode of working and the philosophy where doing things "good enough" has been proven to be a better goal than developing complex architectures or schemas.

---

**Tom MacWright** ~ I'm mostly a developer who works on open source map-related technology. I've worked on Mapbox's stack, including TileMill, CartoCSS, Mapbox.js, and 'the rest', and also OpenStreetMap's core technology, like the iD editor, rails port, and (now) CartoCSS. Some side-projects have graduated to Mapbox, including geojson.io, and some are still incubating, like mapschool, mapmakers-cheatsheet, and simple-statistics.

Lightning Talk: ***The Weird Geo Future*** ~ I'll discuss the current state of open source geography from the perspective of storing, analyzing, and distributing large amounts of data, and then a few sneak peeks of future approaches that attempt to unify and simplify the system.



ALFRED P. SLOAN  
FOUNDATION



New York  
Public  
Library

## Moving Historical Geodata to the Web

The New York Public Library

Supported by the Alfred P. Sloan Foundation

November 5-7, 2014

---

**Tonia Sutherland** is the Lead Researcher at the Collaborative for Historical Information and Analysis in the World History Center at the University of Pittsburgh. Global in scope and comparative in nature, Tonia's research interests include information stewardship, policy and ethics; theories and cultures of collaboration; critical information studies; community and cultural informatics; and the digital humanities.

Lightning Talk: ***Creating a World-Historical Gazetteer*** ~ The Collaborative for Historical Information and Analysis is working to create a world-historical data resource documenting trends over the past 400 years and into the future. In order to aggregate and analyze data from unlike sources, it is first necessary to establish shared language for data documentation such as controlled vocabularies and ontologies. For historical geospatial data that covers the history of the world from 1500 forward, CHIA is working with a team of social scientists, information scientists, and developers to create a world-historical gazetteer.

---

**Tsering Wangyal Shawa** has been the GIS and Map Librarian at Princeton University since 1998. He has widespread experience in selecting, creating, and analyzing geospatial data, and has indepth knowledge on how to create, analyze and preserve paper and digital maps. He holds degrees in the areas of Library science, education, geography, and cartography. He was born in Tibet and has lived and taught geography and cartography to high school in India, Nepal, Kenya, and undergraduate students at the University of Juba, Southern Sudan. At present he teaches a GIS course titled "GIS for Public Policy" at Woodrow Wilson School of Public and International Affairs.

Lightning Talk: ***Princeton's Portal Design and Historic Data Extraction Initiative*** ~ We will show the design of our Digital Maps and Geographic Data portal and a general workflow of how we scan maps, create metadata, and upload geographic data on our server. We will also describe a recent initiative to extract historic road network data of Africa.

---



## Moving Historical Geodata to the Web

The New York Public Library

Supported by the Alfred P. Sloan Foundation

November 5-7, 2014

**Wayne Graham** is the head of the Research and Development team at the University of Virginia Library's Scholars' Lab. As a developer, Wayne's technical expertise is in web application languages, systems design, and technical training for humanities-based research questions. His research interests include public humanities, augmented and virtual reality, photogrammetry, and scholarly interface design.

Lightning Talk: **Neatline** ~ Neatline is a geotemporal exhibit-builder that allows you to create beautiful, complex maps, image annotations, and narrative sequences from Omeka collections of archives and artifacts, and to connect your maps and narratives with timelines that are more-than-usually sensitive to ambiguity and nuance. Neatline lets you make hand-crafted, interactive stories as interpretive expressions of a single document or a whole archival or cultural heritage collection. You can import these documents (georeferenced historical maps, manuscripts, high-res photographs, etc.) from an existing collection, or create a new digital archive, yourself. Every Neatline exhibit is your contribution to humanities scholarship, in the visual vernacular.

---

**Nicholas Wolf** is Assistant Professor/Faculty Fellow at Glucksman Ireland House, New York University specializing in historical geolinguistics and demographic history with a focus on Ireland and New York City.



ALFRED P. SLOAN  
FOUNDATION



New York  
Public  
Library